

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

Independent claims 1 and 5 have been amended to further distinguish the claimed invention from the referenced prior art. Claim 4 has been cancelled.

Claims 1-3, 5, 6, and 8 were rejected under 35 U.S.C. § 102(b) as being anticipated by Birch et al. (U.S. 5,757,416). Further, claims 4, 7, and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Birch. These rejections are clearly inapplicable to amended independent claims 1 and 5 and the claims that depend therefrom for the following reasons.

Independent claims 1 and 5 recite a frame generating method including, in part, inserting a synchronous word (claim 1) or words (claim 5) into data at a position. Claims 1 and 5 recite that (1) the position is determined based on a known time “t” of a noise cycle of a transmission line. Further, claims 1 and 5 recite that (2) the known time “t” of the noise cycle is a measurement of time between an occurrence of cyclical noises on the transmission line, wherein the cyclical noises occur at every time “t” in the data. Birch fails to disclose or suggest the above-mentioned features (1) and (2) of independent claim 1 and 5.

Rather, Birch teaches inserting synchronization words according to noise characteristics (i.e., noise levels) of a particular transmission channel (see claim 20). Specifically, Birch teaches that an encoding scheme is determined based on noise characteristics such that in a highly noisy environment (i.e., a high noise level) a specific type of encoding is utilized in order to provide robustness under high Gaussian noise conditions (i.e., high noise levels, see col. 13, lines 31-40, and col. 19, lines 46-48). Accordingly, Birch teaches that specific encoding schemes are utilized based on a level of noise (i.e., the noise characteristics of Birch are characteristics relating to the level of noise, such as “highly noisy environment” and “high Gaussian noise”).

In view of the above, it is clear that the disclosure by Birch of determining an encoding scheme based on a level of noise is not a disclosure or suggestion of inserting a synchronous word at a position, wherein the position is determined based on a known

time "t" (e.g., duration) between the occurrence of cyclical noises, wherein the cyclical noises occur at every time "t" in the data, as recited in claims 1 and 5.

In other words, Birch teaches encoding based on a level of the noise itself. However, Birch does not disclose or suggest determining a position based on the timing/duration of cyclical noises, as recited in claims 1 and 5, because the timing/duration of noise, as recited in claims 1 and 5, is not related to the level of the noise itself, as discussed above regarding Birch, but is rather related to the timing/duration of the occurrence of the noise, regardless of the noise level.

In addition, it is noted that amended independent claims 1 and 5 recite that a length of each synchronous word is approximately equal to a multiple of a length of the noise cycle by a natural number. Birch fails to disclose or suggest this above-mentioned feature since Birch merely discloses inserting synchronization words (length not specified) according to noise levels of the transmission channel. Therefore, Birch does not anticipate claims 1 and 5.

Furthermore, Birch does not suggest the above-discussed limitations of independent claims 1 and 5. Therefore, it would not have been obvious to one of ordinary skill in the art to modify Birch so as to obtain the invention of independent claims 1 and 5. Accordingly, it is respectfully submitted that independent claims 1 and 5 and claims 2, 3, and 6-9 which depend therefrom are clearly allowable over Birch.

In view of the above amendments and remarks, it is submitted that the present application is in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,
Junji KONDOU et al.

By: 
Andrew L. Dunlap
Registration No. 60,554
Attorney for Applicants

ALD(JRF)/nrj
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
November 26, 2007